

Using pre-assessment data to adapt instruction (example) EngageNY, 6th Grade, Module 4

Focus standards: All 6.EE standards

Foundational standards: Foundational standards listed in Module Overview and/or vertical progressions chart:

- properties of operation (1.OA.B.3, 3.OA.B.5)
- factors and multiples (4.OA.B.4, 6.NS.B.4)
- writing and interpreting numerical expressions (5.OA.A.2)
- analyzing patterns and relationships (5.OA.B.3)
- understanding place value (5.NBT.A.2)
- understanding and using ratio reasoning to solve problems (6.RP.A.3)
- angles and angle measure (4.MD.C.5, 4.MD.C.6, 4.MD.C.7) -- (in Module Overview only)
- graphing on the coordinate plane (5.G.A.1, 5.G.A.2) -- (in Module Overview only)
- operations with fractions (5.NF.A.1, 5.NF.B.4) -- (in vertical progressions chart only)

Action Plan: Whole class (additional lessons)

Topic/Standards	Data and Action
writing and interpreting numerical expressions (5.OA.A.2)	<p>Data: 0% answered correctly, 22% partial credit</p> <p>Action: Prior to lessons 5 and 6, engage students in tasks related to:</p> <ol style="list-style-type: none"> 1. writing numerical expressions: Words to Expressions 1 2. order of operations: Using Operations and Parenthesis 3. meaning of equal sign: Valid Equalities?
Add/subtract fractions (5.NF.A.1)	<p>Data: 13% were able to add and subtract fractions; a large majority of the class did not recognize the need to find common denominators or lacked the skill to write equivalent fractions in order to add and subtract the fractions</p> <p>Action: Prior to lesson 23, spend 2-3 class periods building understanding+skill with fractions:</p> <ul style="list-style-type: none"> • Lesson: Understanding equivalent fractions (Learn Zillion) • Video: Adding mixed fractions: regrouping • Tasks: Finding Common Denominators to Add, Finding Common Denominators to Subtract, Mixed Numbers with Unlike Denominators
analyzing patterns and relationships (5.OA.B.3)	<p>Data: 26% full credit, 30% partial credit</p> <p>Action: Prior to lesson 31, repurpose problem 5 from the pre-assessment as an instructional task. Allow students to work in groups on the problem and then share/discuss answers as a whole class. Students who received full credit can work on the Sidewalk Patterns task or an extension.</p>

Action Plan: Whole class (spiral or reinforce)

Topic/Standards	Data and Action
properties of operation (1.OA.B.3, 3.OA.B.5)	Data: 70% answered both questions correctly, but most student explanations were weak Action: Strengthen explanations and precision of language related to commutative and distributive properties throughout the module.
factors and multiples (4.OA.B.4, 6.NS.B.4)	Data: approximately 50% of students correctly identified the missing factors parts a and b; 66% of students show partial understanding in part c, but explanations lacked precision Action: Strengthen precision of language in student explanations related to factors and multiples throughout the module.
understanding place value (5.NBT.A.2)	Data: 65% correct Action: Include numerical expressions that include multiplying numbers by powers of 10; reinforce the meaning and use of exponents

Action Plan: Small group intervention

Topic/Standards	Students	Action
properties of operation (1.OA.B.3, 3.OA.B.5)	Student 13, 14, 18, 21 (50%) Students 17, 19, 23 (0%)	<ol style="list-style-type: none"> 1. Re-engage students with problems 1 and 2 from the pre-assessment related to properties of operations 2. If necessary, engage students in tasks to reinforce the commutative and distributive properties
factors and multiples (4.OA.B.4, 6.NS.B.4)	Students 11, 21, 23 (33%) Students 13, 14, 17 (0%-17%)	<ol style="list-style-type: none"> 1. Watch video to build a conceptual understanding of the relationship between factors and multiples 2. Engage in related tasks: Factors and Common Factors and Multiples and Common Multiples, 3. Use the fluency exercise from Lesson 11 to practice finding the GCF
Multiply fractions (5.NF.B.4)	Students 1, 2, 4, 5, 11, 16, 17, 18 (answered 1 question incorrectly)	<ol style="list-style-type: none"> 1. Watch Multiplying unit fractions and whole numbers video 2. Engage with tasks aligned to 5.NF.B.4: Sugar in six cans of soda and To multiply or not multiply